



Does rain really cause pain? A systematic review of the associations between weather factors and severity of pain in people with rheumatoid arthritis

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Abstract:

OBJECTIVE: To examine the association between weather and pain in rheumatoid arthritis (RA).
METHODS: Systematic review of longitudinal observational studies (up to September 2009) with data on the association between weather variables and severity of pain in RA. The methodological quality was rated independently by the two authors according to an adapted Newcastle-Ottawa Scale. We analyzed the data on an aggregated (group) level with a meta-analysis of correlations between pain and weather, and at an individual level as the proportion of patients for whom pain was significantly affected by the weather.
RESULTS: Nine studies were included. Many different weather variables have been studied, but only three (temperature, relative humidity and atmospheric pressure) have been studied extensively. Overall group level analyses show that associations between pain and these three variables are close to zero. Individual analyses from two studies indicate that pain reporting in a minority (

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Meteorological Factors, Temperature

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Climate Change and Human Health Literature Portal

Other Health Impact

Other Health Impact: Pain in rheumatoid arthritis

Mitigation/Adaptation: ☒

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Other Vulnerable Population: Rheumatoid arthritis sufferers

Resource Type: ☒

format or standard characteristic of resource

Review

Timescale: ☒

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content